

REMARKS

Summary of the Office Action

Claim 22 stands objected to because of informalities.

Claims 1-7, 9-22, 24 and 25 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,168,980 to Yamazaki et al.

The Examiner is thanked for indicating that claim 26 is allowed.

Summary of the Response to the Office Action

Applicant has amended claims 1 and 11 to more particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Also, Applicant has amended claims 7 and 22 to improve their form. Accordingly, claims 1-25 remain pending for further consideration with claim 26 being allowed.

The Objection to Claim 22

Claim 22 stands objected to because of minor informalities. Applicant has amended claim 22 in accordance with the Examiner's comments. Accordingly, it is respectfully requested that the objection to claim 22 be withdrawn.

The Rejection under 35 U.S.C. § 102(b)

Claims 1-7, 9-22, 24 and 25 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,168,980 to Yamazaki et al. To the extent that this rejection might be applied against the claims as newly-amended, it is respectfully traversed for at least the following reasons.

With regard to independent claims 1 and 11, as newly-amended, Applicant respectfully submits that Yamazaki et al. does not teach or suggest the claimed combination including at least a feature of “the applying heat to anneal the gate insulation layer is conducted under an atmosphere including at least H₂.”

The Final Office Action appears to allege that Yamazaki et al. discloses all of the limitations of independent claims 1 and 11 by citing to illustrations of FIG. 1A-7E and disclosure in col. 7, lines 62-67 and in col. 8, lines 1-20 of Yamazaki et al. Applicant respectfully disagrees that Yamazaki et al. discloses the present invention of independent claims 1 and 11, as newly-amended.

As described on page 15 of [0039] of the specification, the present application discloses that “[i]f the above-mentioned annealing process is conducted under the H₂ atmosphere, the resulting silicon oxide gate insulation layer 108 can become highly dense.” That is, in the present application of newly-amended independent claims 1 and 11, the applying heat to anneal the gate insulation layer is conducted under an atmosphere including at least H₂.

In contrast to the present application, Yamazaki et al. merely discloses, for example, in

col. 8, lines 61-64, that “[t]he resulting silicon oxide film was then thermally annealed at 400 to 700° C in an atmosphere comprising a gas selected from the group consisting of nitrogen and oxygen.” (emphasis added). In other words, Applicant respectfully submits that Yamazaki et al. fails to teach or suggest the claimed combination including at least the feature of “the applying heat to anneal the gate insulation layer is conducted under an atmosphere including at least H₂,” as recited by newly-amended independent claims 1 and 11.

For at least the reasons as those discussed above, Applicant respectfully asserts that the rejection of independent claims 1 and 11 under 35 U.S.C. § 102(b) should be withdrawn because Yamazaki et al. does not teach or suggest each feature of independent claims 1 and 11, as newly-amended. As pointed out in MPEP § 2131, “[t]o anticipate a claim, the reference must teach every element of the claim.” Thus, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987).” Furthermore, Applicant respectfully assert that the rejections of dependent claims 2-7, 9-10, 12-22, and 24-25 should also be withdrawn at least because of their dependencies upon independent claims 1 and 11, and for the reasons set forth above.

With no other rejections pending, Applicant respectfully asserts that claims 1-25 are in condition for allowance with claim 26 being allowed.

CONCLUSION

In view of the foregoing, Applicant respectfully requests entry of the amendments to place the application in clear condition for allowance or, in the alternative, in better form for appeal. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

MORGAN, LEWIS & BOCKIUS LLP

Dated: April 11, 2005

By: Mary Jane Boswell
Mary Jane Boswell
Reg. No. 33,652

Customer No.: 009629
MORGAN, LEWIS & BOCKIUS LLP
1111 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
Telephone: 202-739-7000
Facsimile: 202-739-3001

DLM/XY/fdb